FOURTH INTERNATIONAL CONGRESS ON PLATELET-ACTIVATING FACTOR AND RELATED LIPID MEDIATORS

September 23 - 25, 1992, Snowbird, Utah
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I. Introduction

The Fourth International Congress on PAF and Related Lipid Mediators will be held September 22-25, 1992 at Snowbird, Utah just outside Salt Lake City. This Congress focuses on the potent phospholipid mediator, platelet-activating factor, and compounds with related structure and biological activity. The meeting occurs as a free-standing entity with no society support. The first was organized in Paris in 1983 with subsequent meetings in Gatlinburg, Tennessee (1986), and Tokyo (1989). At each meeting, the organizing committee elects a chairman and organizing committee for the subsequent meeting. The initial meetings emphasized studies of the structure of PAF as it was the first phospholipid known to convey intercellular signals, and to act *via* binding to a receptor. Other areas of emphasis were analytical methods, the development of receptor antagonists, and description of biochemical pathways for the synthesis and degradation of PAF. In subsequent meetings the information regarding biochemical pathways has been extended and the emphasis has shifted from natural product chemistry, medicinal chemistry, and analytical methods to physiological studies and trials of receptor antagonists in animal models of disease. In the meeting to be held next year we expect that this trend will continue — there will be substantial emphasis on aspects of the biochemistry and the molecular biology of the receptor and the enzymes responsible for the synthesis and degradation of PAF. Additionally, there will be continued emphasis on studies to define the role of PAF in physiological events (implantation of embryos and initiation of labor, targeting of leukocytes to appropriate locations) and in pathological actions.

Why are we having this meeting? This Conference is unusual in that it is organized around a molecule or family of molecules and draws participants from across disciplinary lines. Thus, it has a different structure than almost any other meeting. It stands in contrast with other meetings such as a biochemistry meeting that would include biochemists interested in PAF, but not physiologists and clinicians, and conversely with a meeting on pulmonary diseases which would include physicians interested in the role of PAF in asthma, but not biochemists, medicinal chemists, or pharmacologists. This Congress has attracted scientists from these and other disciplines. It is the only meeting of which we are aware that brings together such a spectrum of individuals with different backgrounds and general interests, but a common interest in PAF and related molecules and their myriad physiological and pathological actions.

We have tried to insure maximal attendance in a variety of ways: at each of the meetings that the organizers have attended in the past two years, we have shown a poster and/or a slide advertising the Congress, and have had photocopied announcements available. We prepared a computerized mailing list from the registrants at each of the preceding congresses, the names of those who wrote us requesting more information, and those who wrote to us requesting reprints of our recent review articles on PAF. Additional names were contributed by members of the Advisory Committee. The scientists on this list all received our first brochure announcing the Congress. Additionally, we have had an announcement placed on the calenders of meetings published by many journals

II. Format of the Conference

In the preceding Congresses all of the oral presentations have been made in plenary sessions, with other contributions presented as posters. However, due to the growth of the field and the diversity of interest among the individuals who will attend, we have planned a mixture of plenary and concurrent sessions. Each morning will be divided into two plenary sessions (8:00-10:00 am and 10:30 am-12:30 pm), separated by a coffee break, with different themes. Each session will have three speakers who will be allotted 30 minutes for presentation and 10 minutes for discussion. The plenary speakers are expected to put their area into a broad context so that individuals from other disciplines will get an overview of the latest and best work in that field. The topics of the plenary lectures are keyed to the concurrent sessions in the afternoon.

Each afternoon will be split into early and late portions (1:30-3:00 pm and 3:30-5:30 pm)and each portion will have three concurrent sessions. That is, there will be six sessions each afternoon — three of them running concurrently in each half of the afternoon. Each of these half-afternoon sessions will have four speakers. Invited speakers, who will emphasize overviews of the field, will have 30 minutes and the remainder of the speakers will have 15 minutes. The bulk of these will be chosen from submitted abstracts, although additional speakers will be invited within the next year based on new developments. Finally, there will be a poster session on each day of the Congress (5:30-7:00 pm). Thus, there will be three separate poster sessions. The posters will be put up each morning and be displayed for a 24 hour period. There will be ample time for reviewing of the posters during the noon hour, at coffee breaks, and, in particular, the poster session each evening, at which time the presenter will be in attendance. Much of the information presented at this Congress will be based on submitted abstracts. The abstract forms will be mailed in February of 1992 and the deadline for receipt will be May 31. The organizing committee will be divided into subcommittees to evaluate abstracts and pick those for oral presentation versus poster presentation. Investigators will be informed of this decision by August 1, 1992.

We anticipate that approximately 400 investigators will attend this Congress. We have planned for as many as 500 and could accommodate that many or perhaps a few more. The number of registrants has grown progressively in the history of the Congress. The most recent meeting, in Japan, had slightly over 300 registrants. We expect that there will be a substantially larger number since the majority of investigators in this field are in north America and the meeting in Salt Lake City will be much more convenient, and we are encouraging attendance by trainees. We also have taken care to include investigators from other countries as a substantial amount of the important work in this field is being performed in Japan and Europe. The selection of work for presentation will be based strictly on its scientific worthiness.

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PROGRAM (Partial and Tentative)

Wednesday Morning, September 23

Plenary Session I: ***Pathological and physiological actions of PAF***
Chairmen: Shoshichi Nojima (Teikyo Univ) and Guy Zimmerman (Univ of Utah)

A. Inflammation
Lecture: Mediators of inflammation
Possible speaker: Peter Henson, Marco Baggiolini

B. Reproduction
Lecture: The role of PAF in fertilization and implantation
Speaker: Christopher O'Neill, Royal North Shore Hospital, Australia

C. Cardiovascular
Lecture: PAF in ischemia and reperfusion - effects on the microvasculature
Speaker: Neil Granger, LSU

Coffee Break

Plenary Session II: ***Regulation of PAF synthesis***
Chairmen: Robert Wykle (Bowman Gray) and Keizo Inoue (Tokyo Univ)

A. Pathways
Lecture: Overview/ role of transacylases
Speaker: Fred Snyder, Oak Ridge Affiliated Universities

B. Molecular biology of the enzymes
Lecture: Isolation of cDNA clone for a phospholipase A_2
Speaker: Ruth Kramer, Lilly Research

C. Regulatory mechanisms
Lecture: Control of phospholipases and other signaling mechanisms
Speaker (tentative acceptance): Robert Bell, Duke University

Wednesday Afternoon, September 23

Concurrent Session 1. ***Reproduction***
Chairmen: John Johnston (Univ of Texas) and Chris O'Neill (Royal North Shore Hospital)
Invited speaker: John H. Johnston, University of Texas, Dallas - The role of PAF in the initiation of labor

Concurrent Session 2. ***Receptor antagonists and other pharmaceutical approaches***
Chairmen: San-Bao Huang (CytoMed)

Concurrent Session 3. ***Vascular injury and shock***
Chairmen: Giora Feuerstein (SmithKline Beecham)

Coffee Break

Concurrent Session 4. ***Clinical trials of receptor antagonists***
Chairmen: Clive Page (King's College, London)

Concurrent Session 5. ***Synthesis of PAF***
Chairmen: Mariano Sanchez Crespo (Jimenez Diaz Foundation, Madrid)
Invited lecture: Robert Wykle, Bowman Gray School of Medicine - Role of a transacylase in PAF synthesis

Concurrent Session 6. ***PAF effects in allergic and immunological responses***
Chairmen: Kue-Hsiung Hsieh (Natl Taiwan Univ)
Invited lecture: Marek Rola-Pleszcynski, University of Sherbrooke

Wednesday Evening, September 23

Poster Session I: To be selected from contributed abstracts; topics include PAF synthesis, Reproductive Biology, Cardiovascular Disease, Shock, and Receptor antagonists

Thursday Morning, September 24

Plenary Session III: ***The receptor for PAF***
Chairmen: Donald Hanahan (Univ of Texas) and
Pierre Braquet (Institute Henri Beaufour)

A. Structure/function of the receptor
Lecture: Molecular characterization of the receptor(s) for PAF
Speaker: Takao Shimizu, Tokyo University

B. Signaling mechanisms
Lecture: How the receptor signals events
Speaker: To be decided closer to the meeting - there are likely to be major advances between now and then

C. Antagonists
Lecture: Overview of antagonists - chemistry, physiology, and clinical application
Possible speakers: John Chabala, Merck Research,
or K. H. Weber, Boehringer Ingelheim

Coffee Break

Plenary Session IV: ***Pathological and physiological actions of PAF***
Chairmen: Merle Olson (Univ of Texas, San Antonio) and
Renato Cordeiro (Oswaldo Cruz Foundation, Rio de Janeiro)

A. Gastrointestinal effects
Lecture: PAF in inflammatory bowel disease
Speaker: John Wallace, University of Calgary

B. Pulmonary/asthma
Lecture: PAF as a mediator of asthma
Speaker: Peter Barnes, University of London

C. Nervous system
Lecture: PAF as a messenger in the nervous system
Speaker: Nicolas Bazan, Tulane University

Thursday Afternoon, September 24

Concurrent Session 7. ***Analytical methods***
Chairmen: Keith Clay (National Jewish Hospital) and Kunihiko Saito (Kansai Medical University)
Invited speakers: Keith Clay, GC-MS assays for PAF and related lipids; Junko Sugitani, Kansai Medical University, Radioimmunoassays; Franz Birke, Boehringer Ingelheim, Radioreceptor assay.

Concurrent Session 8. ***Receptor and signaling mechanisms***
Chairmen: Joseph O'Flaherty (Bowman Gray School of Medicine) and Shivendra Shukla (Univ of Missouri)
Invited speakers: Shivendra Shukla, Tyrosine phosphorylation ; Joseph O'Flaherty, Protein kinase C (not yet invited).

Concurrent Session 9. ***Nervous system***
Chairmen: Gianfrancesco Goracci (Univ of Perugia)
Invited speakers: Giora Feuerstein, SmithKline Beecham and Federico Bussolino, University of Torino

Coffee Break

Concurrent Session 10. ***Pulmonary diseases/asthma***
Chairmen: Boris Vargaftig (Pasteur Institute) and Sohei Makino (Dokkyo Univ)
Overview lecture: Boris Vargaftig, Pasteur Institute (Paris)

Concurrent Session 11. ***Cell-Cell Interactions: implications for thrombosis and inflammation***
Chairmen: Federico Bussolino (Torino) and Tom McIntyre (Univ of Utah)
Overview lecture: Guy Zimmerman, University of Utah - The role of PAF in cell - cell interactions

Concurrent Session 12. ***Interactions of PAF and eicosanoids***
Chairmen: Santosh Nigam (Free Univ of Berlin)
Invited lecture: Christina Leslie, National Jewish Hospital - Biochemical studies of a phospholipase A_2 specific for arachidonate

Thursday Evening, September 24

Poster Session II: To be selected from contributed abstracts; topics include PAF receptor, signaling mechanisms, interactions with eicosanoids, and pulmonary, GI, endocrinological and neurological effects

Friday Morning, September 25

Plenary Session V: ***Biological actions of phospholipids related to PAF***
Chairmen: Henk van den Bosch (Univ of Utrecht) and Fred Snyder (Oak Ridge)

A. Oxidized phospholipids
Lecture: Structure, occurence, and function of oxidized phospholipids with PAF-like activity
Speaker: Thomas McIntyre, University of Utah

B. 1-0-acyl analogs of PAF
Lecture: The occurence, synthesis, and function of 1-acyl PAF
Speaker: Floyd Chilton, Bowman Gray School of Medicine

C. Related ether lipids
Lecture: The Effects of Ether Lipids on Tumor Cells
Speaker: Wolfgang Berdel, Free University of Berlin

Coffee Break

Plenary Session VI: ***Degradation of PAF and related lipids***
Chairmen: Steve Prescott (Univ of Utah) and Masao Miwa (Univ of Shizuoka)

A. Hydrolysis of PAF in tissues
Lecture: The PAF acetylhydrolase from mammalian tissues
Speaker: Keizo Inoue, Tokyo University

B. Metabolism of PAF in blood
Lecture: The plasma PAF acetylhydrolase catalyzes the hydrolysis of oxidized phospholipids: implications for inflammation, vascular injury, and atherosclerosis.
Speaker: Diana Stafforini, University of Utah

C. Metabolism via mechanisms other than the acetylhydrolase
Speaker: will be chosen closer to the Congress

Friday Afternoon, September 25

Concurrent Session 13. ***Ether lipids and tumors***
Chairmen: Wolfgang Berdel (Free Univ Berlin)

Concurrent Session 14. ***Oxidized phospholipids/acyl PAF/Other Analogs***
Chairmen: Floyd Chilton (Bowman Gray)
Invited lectures: Akira Tokumura, University of Tokushima;
Takauki Sugiura, Teikyo University

Concurrent Session 15. ***Renal effects and blood pressure***
Chairmen: Giovanni Camussi (Univ of Naples)
Overview lecture: Giovanni Camussi

Coffee Break

Concurrent Session 16. ***Gastrointestinal and hepatic effects***
Chairmen: John Wallace (Univ of Calgary)
Invited speaker: Merle Olson, University of Texas, San Antonio -
PAF in the liver: effects and mechanisms

Concurrent Session 17. ***Degradation of PAF***
Chairmen: Kei Satoh (Hirosaki University) and Diana Stafforini (Univ of Utah)

Concurrent Session 18. ***Structure and function of the PAF receptor***
Chairmen: Takao Shimizu (Tokyo Univ)
Possible invited speakers: Patrick Gray, ICOS Corp, Structure and function of a human receptor for PAF; Craig Gerrard, Harvard University, Isolation of a cDNA clone for a human PAF receptor from U937 cells.

Friday Evening, September 25

Poster Session III: To be selected from contributed abstracts; topics include the biological actions and structures of lipids related to PAF, PAF receptor, degradation of PAF and related lipids, antitumor and antiviral actions of ether lipids, clinical trials, and renal and gastrointestinal effects.

BUDGET

ANTICIPATED EXPENSES

Partial travel & lodging for 30 speakers (includes European, Australian, &Japanese scientists as well as N. America)	$60,000	
Partial support for 20 trainees @ $750 each	$15,000	
Abstract forms, preparation of abstract booklet and correspondence	$ 4,500	
Postage for preliminary program and call for abstracts	$ 2,950	
Conference room rental	$ 4,000	
Audio-visual and equipment rental	$ 2,810	
Salaries of personnel in conference implementation @ $50 per registrant	$20,000	
Welcome reception	$ 8,000	
TOTAL EXPENSES FOR MEETING		$117,260

ANTICIPATED INCOME

Registration fees		
Full registrants 300 @ $200	$60,000	
Trainees 50 @ $100	$ 5,000	
TOTAL INCOME		$ 65,000

TOTAL ADDITIONAL FUNDING REQUIRED *$52,260*

Requested of The Council for Tobacco Research

Support for partial expenses of 4 speakers	$ 8,000	
Support for partial expenses of 6 students	$ 4,500	
Total requested		***$12,500***

Budget

Budget Justification

We have budgeted the most money for support of travel by invited speakers. We believe that this is crucial to insure that we have participation by the best workers in the relevant fields - even if their main emphasis is not on PAF. This is a particularly prominent issue in this Congress because PAF and related compounds have many physiological and pathological actions. We are fortunate that there is high interest among scientists and clinicians from diverse fields and we have encountered strong cooperation from potential speakers thus far.

Another major item is for partial support for trainees to attend. This is a high priority for us. One of the reasons for picking snowbird as a site was that the hotel has 20 dormitory-style rooms available (4 persons/room) at low cost, which also should help reduce the cost for attendance by trainees.

The travel funds were estimated on current rates (discounted), and will almost surely provide only partial support given the prediction for travel expenses for next year. In no case will we pay more than coach fare, and we will strongly encourage the use of discounted fares. To assist in this, our conference planner has already arranged a special, no-penalty, deep discount on Delta flights (Salt Lake City is a hub for Delta, and they have the majority of flights here; they now also have good connections to Europe and Japan).

Snowbird was chosen as the site because of their facilities for a conference of this size (see below), but also because the time of year that the congress will be held is the lowest season for a ski resort, and the prices for rooms is quite attractive ($80 / night). We have contracted for a commercial company to provide vans to meet registrants at the airport and transport them to the hotel for $10 each (not charged to Budget).

Supplement: Detailed description of the program

Wednesday Morning

Plenary Session I: ***Pathological and physiological actions of PAF*** will be chaired by Professor Nojima, formerly of Tokyo University and now in the Dep't. of Pharmacology at Teikyo University, and by Guy Zimmerman (Pulmonary Diseases, University of Utah). Professor Nojima has been a leader in the field of lipid metabolism for many years and made some early important observations on the regulation of PAF synthesis. Dr. Zimmerman is well known for his studies in cell biology, particularly the targeting of neutrophils to areas of inflammation. This session will include an *overview talk on inflammatory mediators*. We expect that this will talk will be given by Peter Henson, who discovered PAF and has worked on a variety of lipid mediators, or by Marco Baggiolini, who is well known for his elegant studies of molecular mechanisms involved in inflammation. The purpose of this talk is to give a broad view of the mechanisms of inflammation and to define, if possible, the role that PAF plays among the various mediators. This is a crucially important area since many of the actions of PAF can be explained by its proinflammatory traits. The second talk in this session will be on *reproduction* since one of the functions to PAF appears to be in fostering fertilization and implantation. Christopher O'Neill of the Royal North Shore Hospital in Australia has performed extensive work in this field and will present this overview lecture. This is a particularly intriguing topic since it presumably represents a physiological, rather than pathological, action of PAF. The final talk in this session will be on *cardiovascular disease* and will focus on the role of PAF in the vasculature. The induction of an inflammatory milieu at the endothelial-blood interface is crucial to many physiological and pathological responses. Neil Granger of the Department of Physiology at Louisiana State University will deliver this lecture. His group has focused on events in the microvasculature and has made many contributions regarding the mechanisms by which inflammatory reactions occur.

Plenary Session II: ***Regulation of PAF synthesis*** will be chaired by Robert Wykle (Dep't of Biochemistry, Bowman Gray Medical School), who discovered the enzymes involved in PAF synthesis via the remodeling pathway, and by Keizo Inoue (Tokyo University) who also has studied the enzymes of PAF synthesis and degradation. The *first lecture* will be by Fred Snyder of Oak Ridge Affiliated Universities whose group has described the enzymatic steps in both of the pathways that are known to lead to PAF synthesis. He will review the regulation of each pathway, and the role of each pathway under various circumstances. Additionally, he will discuss new work from his laboratory that has described a novel transacylase involved in the initiation of PAF synthesis. This exciting observation may explain the interrelationship between PAF synthesis and eicosanoid metabolism and other diverse observations on arachidonate metabolism in stimulated cells. The *second talk will be given by Dr. Ruth Kramer* of the inflammation group at Eli Lilly . She and her colleagues recently have purified a phospholipase A_2 which is specific for phospholipids with arachidonate and have cloned its cDNA. She will discuss the structure of this enzyme and its regulation by phosphorylation. The final talk in this session will be one that seeks to integrate what is known about other changes in cellular lipids following cell activation to PAF biosynthesis under the same circumstances. One such issue is the role of protein kinase C, which is both activated by PAF stimulation of target cells and, conversely, is required for PAF synthesis. *Dr. Robert Bell* (Dep't. of Biochemistry, Duke) will discuss the role of lipids as intracellular messengers, activation of PKC, and related signaling mechanisms.

Wednesday afternoon

Concurrent Session 1. ***Reproduction*** will be chaired by Dr. John Johnston (Univ. of Texas) and Chris O'Neill (see above). The session will begin of an overview talk by Dr. Johnston on the role of PAF in the initiation of labor. The remainder of the session will be filled by submitted abstracts on recent work that has suggested that PAF may have a role in the efficiency of fertilization, implantation, and parturition.

Concurrent Session 2. ***Receptor antagonists and other pharmaceutical approaches*** will be chaired by San-Bao Huang (CytoMed Corporation, formerly of Merck Research). Dr. Huang was one of the first to characterize PAF receptors and to demonstrate the likelihood of two receptors. Several pharmaceutical companies have maintained active programs in identifying new antagonists of the PAF receptor. Additionally, the recent cloning of a cDNA for the receptor has led to the development of rational drug design programs and we expect that a substantial information will be submitted for this session. We currently do not plan to invite a speaker.

Concurrent Session 3. ***Vascular injury and shock*** will be chaired by Giora Feuerstein, Director of Pharmacological Research at SmithKline Beecham, and formerly of the Physiology Dep't at the Uniformed Services Medical School. He has studied cardiovascular effects of PAF and demonstrated its role in a ischemia. Several groups have shown that antagonists of the PAF receptor protect animals subjected to several types of shock and/or vascular injury. We anticipate that there will be a large number of abstracts submitted in this area.

Concurrent Session 4. ***Clinical trials*** will be chaired by Clive Page (King's College,University of London). We expect reports of trials of PAF receptor antagonists in a variety of clinical syndromes in which PAF has been implicated. None of these trials have been published yet but informal information suggests that several, particularly in asthma and allergic rhinitis, will be completed and available for presentation by the time of the meeting.

Concurrent Session 5. ***Synthesis of PAF*** will focus largely on regulation. Mariano Sanchez Crespo (Jimenez Diaz Foundation, Madrid) will be the chairman. He has worked on several aspects of this problem. Robert Wykle (Bowman Gray School of Medicine) will present an invited lecture on the role of a novel transacylase in the synthesis of PAF. As described above, this discovery opens a new area connecting the synthesis of PAF and arachidonate metabolism. Also, it is likely that new information will be available about the acetyltransferase since several groups are working actively in this area. Additionally, we expect that studies on the regulation of the PLA_2. Finally, several groups now have shown that the fatty acid composition of cells regulates PAF synthesis, and animal studies have demonstrated that dietary fat intake alters PAF synthesis. This issue will be addressed in detail here and in the related poster session.

Concurrent Session 6. ***PAF effects in allergic and immunological responses*** will be chaired by Professor Hsieh of the National Taiwan University. Marek Rola-Pleszcynski of the University of Sheerbrooke (Quebec) will give an overview lecture on his work of the role of PAF in immunological responses. Several groups have shown that PAF in cytokines can interact to elicit immune responses and the role of PAF as an immune modulator or potentiator is one of widespread interest currently.

Wednesday Evening

The first poster session will emphasize topics covered in the sessions earlier in the day. Refreshments will be available during this time as an inducement for attendance.

Thursday Morning

Plenary Session III: ***The receptor for PAF*** will be chaired by Professor Don Hanahan, who was one of the discoverers of the structure of PAF, and has performed extensive studies of the mechanisms by which PAF activates cells. The co-chairman is Pierre Braquet of the Institut Henri Beaufour in Paris who has been among the leaders in developing and evaluating antagonists of the PAF receptor. *The first speaker will be Takao Shimizu* (Tokyo University) who with his co-workers isolated a cDNA clone for the PAF receptor (guinea pig) early in 1991, and showed that it is linked to G proteins. His group and others now have isolated the human receptor cDNA. Continuing work in Dr. Shimizu's lab is focused on defining crucial structural features that regulate function. *The second lecture will be on the mechanisms by which the receptor signals intracellular events.* We have not chosen a speaker yet since we expect that there will be rapid developments between now and the meeting. For example, several groups are trying to identify a specific G protein that couples the PAF receptor to intracellular signals. Additionally, several groups have shown that tyrosine phosphorylation occurs in response to PAF stimulation of cells. This is a puzzling observation since the receptor clearly is not a tyrosine kinase. We anticipate that the availability of molecular biology and biochemical approaches will result in major advances on these issues before the Congress. The final talk in this session will be an *overview of antagonists of the PAF receptor.* Different chemical classes of compounds ranging from structural analogs to traditional Chinese herbal medicines have been shown to specifically block the PAF receptor. We will invite either *Dr. John Chabala* of Merck Research or *Dr. K. H. Weber* from Boehringer Ingelheim to review the different categories of compounds, their chemistry, and their physiological effects.

Plenary Session IV: ***Pathological and physiological actions of PAF.*** Merle Olson (Dep't of Biochemistry, Univ of Texas) will chair this session. He has shown that PAF is a potent stimulant for glycogenolysis and has performed extensive studies on the mechanism of PAF's actions in the liver and other tissues. The co-chairman will be Renato Cordeiro (Oswaldo Cruz Foundation, Rio de Janeiro), who has studied the role of PAF and inflammation and immunological responses. The first lecture will be on the role of *PAF in inflammatory bowel diseases* and will be delivered by Dr. John Wallace (Dep't of Physiology, Univ of Calgary). The second lecture, by Professor Peter Barnes (Dep't of Pulmonary Diseases, Brompton Hospital, Univ of London), will review the role of *PAF in pulmonary diseases* with particular focus on asthma. The final presentation in this session will review *PAF as a messenger in the nervous and visual systems.* The invited speaker is Dr. Nicolas Bazan (Dep't of Ophthalmology, Tulane Univ) whose group, along with others, has implicated PAF as a messenger in various components of the nervous system.

Thursday afternoon

Concurrent session 7. ***Analytical methods*** will review various approaches to measuring PAF in biological samples. This is a difficult issue since PAF exerts its effects at very low concentrations and is rapidly metabolized. Thus, different methods have been developed to try to measure the concentration of PAF in blood, other body fluids, and tissues in normal and diseased states. The session will be chaired by Keith Clay (National Jewish Hospital) who has developed mass spectrometric assays for PAF and related lipids. Professor Saito (Dep't of Medicine, Kansai Medical Univ) will co-chair the session — he and his coworkers have described a variety of assays for PAF including GC-MS. The speakers will include *Dr. Clay - mass spectrometry*; *Dr. Junko Sugitani*, Kansai Medical University, - radioimmunoassays; and *Dr. Franz Birke*, Boehringer Ingelheim, - radioreceptor assay.

Concurrent session 8. ***Receptor and signaling mechanisms*** will emphasize signaling mechanisms. It will be co-chaired by *Dr. Joseph O'Flaherty* (Bowman Gray School of Medicine) and *Shivendra Shukla* (Univ of Missouri). They also will speak on the roles of protein kinase C and tyrosine phosphorylation, respectively. The remainder of the session will be filled with submitted abstracts. We expect tmany contributions in this area.

Concurrent session 9. ***Nervous system*** will be chaired by Professor Goracci (Neurological Institute, Univ of Perugia). Invited speakers will include *Dr. Feuerstein* (SmithKline Beecham) who will review studies on the role of PAF in brain trauma in ischemia, and *Dr. Federico Bussolino* (Univ of Torino), who will report experiments on the synthesis of PAF by cultured neuronal and retinal cells, and the actions of PAF in neurological tissues. Following the coffee break,

Concurrent Session 10. ***Pulmonary diseases / asthma*** will be co-chaired by Boris Vargaftig (Pasteur Institute) and Sohei Makino (Allergy and Clinical Immunology, Dokkyo Univ). *Dr. Vargaftig* will present an overview of the role of PAF in asthma.

Concurrent Session 11. ***Cell-cell interactions: implications for thrombosis and inflammation*** will be chaired by Dr. Bussolino (Torino) and Dr. Tom McIntyre (Cardiovascular Research Institute, Univ of Utah). Many of the actions of PAF can be explained by its proinflammatory and prothrombotic actions and the cellular mechanisms by which this occurs are of utmost interest. *Dr. Guy Zimmerman* of the University of Utah, Department of Internal Medicine will review his work in the role that PAF plays in cell-cell interactions, particularly between blood cells and endothelial cells. Other talks will include the role of PAF in regulating the adhesive proteins of inflammatory cells in platelets.

Concurrent Session 12. ***Interactions of PAF and eicosanoids*** will be chaired by Professor Santosh Nigam (Dep't of Obstetrics and Gynecology , Free Univ of Berlin). *Dr. Christina Leslie* (Dep't of Pediatrics, National Jewish Hospital) will present her studies of a phospholipase A_2 specific for arachidonic acid-containing-phospholipids, including mechanisms of its activation and translocation to membranes. Studies on the effects of dietary fatty acids on PAF synthesis and arachidonate metabolism will be presented here.

Thursday evening

Poster session with abstracts in areas that have been covered earlier on Thursday.

Friday morning

Plenary session V: ***Biological actions of phospholipids related to PAF.*** The chairmen will be Henk van Den Bosch (Dep't of Biochemistry, Univ of Utrecht) and Fred Snyder (Biological Science Division, Oak Ridge National Laboratories), both of whom are experts in lipid structure and metabolism. The first lecture will be on *oxidized phospholipids that have structural similarity to PAF* in their role in inflammation and reperfusion injury, by Dr. Tom McIntyre (Cardiovascular Research Institute, Univ of Utah). Dr. Floyd Chilton (Dep't of Pulmonary Diseases, Bowman Gray School of Medicine) will present his studies on the occurrence and function of the *1-0-acyl analogs of PAF*. Several groups, most notably Dr. Chilton's, have found that a large percentage of the acetylated phospholipids synthesized in response to cell stimulation, particularly in human cells, have a fatty acid rather than a fatty alcohol at the *sn*-1 position. These compounds generally are about 100-fold less potent than PAF but may have a different spectrum of actions. The final lecture in this session will be on *ether lipids that are toxic for tumor cells*. There are both animal and human studies, including clinical trials, that indicate that these lipids may be useful in the treatment of some tumors. Dr. Wolfgang Berdel (Oncology Dep't, Free Univ of Berlin) will review the studies of the effects of ether lipids on tumor cells and the *in vivo* trials in patients.

Plenary session VI: ***Degradation of PAF and related lipids*** will be chaired by Dr. Steve Prescott (Cardiovascular Research Institute, Univ of Utah) and Masao Miwa (Dep't of Biochemistry, Univ of Shizuoka). Dr. Prescott and his colleagues were the first to purify and extensively characterize the enzyme in plasma that degrades PAF. Dr. Miwa's group has performed several studies of the activity of this enzyme in the blood of patients with different diseases, and have shown that children with severe asthma have a lower activity , which may indicate that an abnormal accumulation of PAF is causally related to their disease. The first lecture, by *Professor Keizo Inoue* (Tokyo University), will describe the mechanisms by which PAF is degraded in tissues. He and his group have performed extensive studies in this area, and the degradative enzymes in tissues are known to be different proteins that the one that circulates in plasma. The second lecture will be delivered by *Dr. Diana Stafforini* (Dep't of Medicine, Univ of Utah), who has worked with Drs. Prescott and McIntyre to purify the plasma form of the enzyme. She will discuss its ability to degrade oxidized phospholipids as well as PAF, and its role in regulating inflammation and vascular injury as a result of hydrolysis of these lipids. *The final speaker in this session has not been chosen yet.* We expect to choose this speaker either from submitted abstracts or from work that we become aware of before the meeting. It is likely that the talk will be based on one of two areas — clinical studies of the role of the plasma enzyme in disease states in humans, or studies on enzymatic mechanisms for degradation of PAF other than the acetylhydrolase. Alternatively, one or more groups may have isolated a cDNA for the acetylhydrolase by the time of the meeting and these reports would be included here.